JOURNAL OF THE FRANKLIN INSTITUTE

INDEX TO VOLUME 331

1994

SUBJECT INDEX

Papers are listed under subject headings with first author's name in parentheses. All authors are listed with titles of their papers in alphabetical order in the Author Index.

A

Adaptive control of engine speed (Kanso), 313
Adaptive control technique (Yang), 125
Adaptive enhancement (Chatterji), 479
Adaptive importance sampling (Zhuang), 285
Adaptive prediction (Campi), 251
Algorithms for 3D surface (Kumar), 531
Antennas (Elsohly), 229
Approximation method (Lee), 367
Asymptotic stability (Mahmoud), 463

B

Bifurfaction (Kennedy), 631
Bifurcation chaos (Chen), 819
Bifurcation of power electronic circuits (Wolf), 957
Bifurcations (Chiang), 1001

C

Camera parameters (Seetharaman), 555
Cauer matrix expansion (Guo), 189
Chaos (Kennedy), 631
Chaos (Jacquin), 659
Chaos (Endo), 859
Chaos avoidance (Ogorzałek), 681
Chaos control (Ogorzałek), 681
Chaos in electric power systems (Chiang), 1001
Chaos in Sigma–Delta modulation (Feely), 903
Chaotic behavior in digital filters (Kocarev), 937
Chaotic phenomena (Pivka), 705
Chua's oscillator (Pivka), 705
Circuitry (Wolf), 957
Circuitry (Zhong), 743
Codes for infinite source distributions (Abrahams), 265
Computer simulation (Zhuang), 285
Constrained distributed parameter systems (Tan), 157
Continuous action set learning automata (Santharam), 607
Controller design (Kanso), 313
Control of discrete systems (Shen), 217
Control law design (Rahmani), 299
Control system design (Yang), 61
Control systems (Chen), 819
Corrington's Walsh function method (Sloss), 273
Cylindrical coordinates (Elsohly), 229

D

Deenhancement (Chatterji), 479
Design of high dimensional systems (Ansary), 35
Design for a two-tank chemical reactor system (Yang), 61
Dielectrics (Elsohly), 229
Dielectrics (Roumeliotis), 345
Differential equations (Sloss), 273
Digital filters (Kocarev), 937
Discrete time systems (Hu), 1
Distributed electromechanical systems (Lee), 43
Distributed parameter systems (Tan), 157
Dynamic system modelling (Robinson), 101
Dynamical systems theory (Ogorzałek), 681
Dynamics (Feely), 903

E

Electric power systems (Chiang), 1001
Engine speed control (Kanso), 313
Engineering design (Wu), 381
Error densities (Rao), 509
Error estimates (Sloss), 273
Extended bond graph method (Lee), 43

F

Fast perturbations (Lin), 329
Filter design (Zha), 449
Filters (Kocarev), 937
FIR system identification methods (Özgen), 145
Flow control (Douligeris), 417
Fractals (Jacquin), 659
Frequency response (Gao), 435
Fusion methods for sensor systems (Rao), 509

G

Genetic algorithms (Wu), 381

H

Helical tape antenna (Elsohly), 229
High dimensional systems (Ansary), 35
Huffman-type codes (Abrahams), 265

I

Image enhancement (Chatterji), 479
Image processing (Sahni), 495
Infinite source distributions (Abrahams), 265
Information energy (Pardo), 13
Integration (Kumar), 531

K

Kneeless biped locomotion (Yang), 125

L

Large scale systems (Lin), 329
Least squares (Özgen), 145
Linear continuous systems (Aguirre), 403
Linear discrete-time systems (Mahmoud), 463
Linear multivariable systems (Guo), 23
Linear time invariant FIR systems (Özgen), 145
Load impedances (Zha), 449
Locomotion system (Yang), 125

M

Markov chains (Robinson), 101
Matrix identification (Gao), 435
Meshes (Sahni), 495
MIMO systems (Guo), 189
Model reduction (Guo), 189
Model reduction (Lee), 367
Monte Carlo method (Zhuang), 285
Multiobjective flow control problem (Douligeris), 77
Multiple sensor systems (Rao), 509
Multipoint matrix continued-fraction expansions (Guo), 189
Multivariable systems modelling (Mastouri), 109
Musical signal generation (Zhong), 743
Musical signals (Choi), 785

N

Network theory (Ravindranath), 587
Network theory (Douligeris), 77, 417
n-port matching network (Zha), 449
Nonlinear dynamics (Chen), 819
Nonlinear dynamics (Endo), 859
Nonlinear dynamics (Feely), 903
Nonlinear perturbations (Mahmoud), 463

O

Optimization (Santharam), 607
Optimization theory (Wu), 381
Optimum flow control (Douligeris), 417
Order reduction of linear multivariable systems (Mastouri), 109
Oscillators (Pivka), 705
Oscillators (Choi), 785

P

Pade' approximation method (Guo), 189
Perturbed large-scale systems (Lin), 329
Perturbations (Mahmoud), 463
Perturbation method (Roumeliotis), 345
Phase-locked loops (Endo), 859
Photography (Seetharaman), 555
Plane control design (Yang), 61
Pole assignment problems (Rahmani), 299
Power circuits (Wolf), 957
Prediction rule (Campi), 251
Probability distribution (Pardo), 13
Probability distribution functions (Robinson), 101

R

Random variables (Pardo), 13
Real-time (Choi), 785
Reconfigurable meshes (Sahni), 495
Reduced order modelling of systems (Mastouri), 109
Robotics (Yang), 125

Robust stability test (Li), 115
Robustness measures (Mahmoud), 463
Root-locus techniques (Guo), 23
Routh expansion (Lee), 367

S

Signal identification (Özgen), 145
Signal processing (Campi), 251
Signals and noise (Zhong), 743
Signal theory (Choi), 785
Singularly perturbed systems (Shen), 217
(SISO) systems (Guo), 23
(SISO) systems (Lee), 367
Stability (Mahmoud), 463
Stability analysis (Hu), 1
Stability of uncertain multiple time-delay systems (Li), 115
Stability methods (Ansary), 35
Stabilization problem (Lin), 329
Stochastics (Campi), 251
Stochastics (Santharam), 607
Stochastic jump parameters (Shen), 217
Symbolic-numeric computation algorithm (Tan), 157
System identification (Gao), 435
System identification methods (Özgen), 145
Systems control (Hu), 1
Systems design (Ansary), 35

T

Tape helix (Elsohly), 229
Telecommunication networks (Douligeris), 77, 417
Term clustering (Aguirre), 403
3D surface description from binocular stereo (Kumar), 531
Time series forecasting (Campi), 251
Transfer functions (Aguirre), 403
Transfer function matrix (Gao), 435

V

Vanishing points in camera parameters (Seetharaman), 555
Voltage tuning (Zhong), 743

W

Walsh function method (Sloss), 273
Wave guide (Roumeliotis), 345

AUTHOR INDEX

Full titles are listed only under first authors: all co-authors are cross-referenced.

A

Abrahams, J.: Huffman-type codes for infinite source distributions, 265
Aguirre, L. A.: Term clustering and the order selection of linear continuous systems, 403
Alshebeili, S. A.: See Özgen, M. T., 145
Ansary, A.: Analysis of a Specially structured descriptor-like model, 35

B

Bao, H.: See Seetharaman, G., 555
Bargar, R.: See Zhong, G.-Q., 743
Blyth, W. F.: See Sloss, B. G., 273

C

Campi, M. C.: Reflections on 'adaptive prediction', 251
Çetin, A. E.: See Özgen, M. T., 145
Chatterji, B. N.: Image enhancement with emphasis on adaptive enhancement and deenhancement, 479
Chen, G.: An overview of bifurcation chaos and nonlinear dynamics in control systems, 819
Chen, W.-K.: See Zha, Q.-Z., 449
Chiang, H.-D.: Bifurcations and chaos in electric power systems: Numerical studies, 1001
Choi, I.: Interactive exploration of a chaotic oscillator for generating musical signals in real-time concert performance, 785
Chow, P.-T.: See Wu, S.-J., 381
Chua, L. O.: Editorial, 629
Chung, C.-H.: See Tan, C.-A., 157
Conneen, T. P.: See Chiang, H.-D., 1001

D

Dash, L.: See Chatterji, B. N., 479
Dauphin-Tanguy, G.: See Rahmani, A., 299
Desai, U. B.: See Kumar, K. S., 531
Desai, U. B.: See Ravindranath, S., 587
Douligeris, C.: Multiobjective flow control in delay constrained telecommunication networks, 77
Douligeris, C.: Multilevel flow control in telecommunication networks, 417

E

Elsherbeni, A. Z.: See Elsohly, A. A., 229
Elsohly, A. A.: Characteristics of a helical tape antenna embedded in a multilayer dielectric coated cylinder, 229
Endo, T.: A review of chaos and nonlinear dynamics in phase-locked loops, 859

F

Feely, O.: Nonlinear dynamics and chaos in Sigma–Delta modulation, 903
Flueck, A. J.: See Chiang, H.-D., 1001

G

Gao, Z.: Transfer function matrix identification from input–output frequency response data, 435
Gourishankar, V.-G.: See Shen, X., 217
Guo, S.-J.: Regional-pole placement of linear multivariable systems via an alternative root-locus technique, 23
Guo, T.-Y.: Model reduction of nonsquare linear MIMO systems using multipoint matrix continued-fraction expansions, 189

H

Halle, K. S.: See Zhong, G.-Q., 743
Hu, X.: On the Schur-Cohn minors and inner determinants and a new stability table, 1
Huang, A.: See Pivka, L., 705
Hung, C.-C.: See Guo, S.-J., 23
Hwang, C.: See Guo, T.-Y., 189
Hwang, C.: See Lee, Y.-C., 367
Hwang, J.-H.: See Lee, Y.-C., 367

I

Iyengar, S. S.: Introduction to the special issue, 475

J

Jacquin, A.: An introduction to fractals and their applications in electrical engineering, 659

K

Kanso, W.: Self-tuning adaptive control of engine speed in the presence of random disturbances, 313
Kashyap, R. L.: See Iyengar, S. S., 475
Kennedy, M. P.: ABC (Adventures in Bifurcations and Chaos): A program for studying chaos, 631
Kocarev, L. M.: Chaotic behavior in digital filters, 937
Kumar, K. S.: New algorithms for 3D surface description from binocular stereo using integration, 531
Kung, F.-C.: See Li, T.-H. S., 115

L

Lee, C.-H.: See Li, T.-H. S., 115
Lee, F.-S.: Modeling of distributed electrochemical systems using extended bond graphs, 43
Lee, Y.-C.: Model reduction of SISO systems by Routh expansion and balancing method, 367
Li, T.-H. S.: A new robust stability test for a class of linear systems with uncertainties and multiple time delays, 115
Lin, C.-L.: Stabilization of singularly perturbed large-scale interconnected discrete-time systems, 329

M

Mahmoud, M. S.: Robustness measures for a class of discrete-time systems, 463
Masada, G. Y.: See Lee, F.-S., 43
Mastouri, C.: Note on reduced order modelling of linear multivariable systems, 109
Mazumdar, R.: See Douligeris, C., 417
Moiola, J. L.: See Chen, G., 819
Moon, T. J.: See Lee, F.-S., 43

O

Ogorzalek, M. J.: Chaos control: How to avoid chaos or take advantage of it, 681
Özgen, M. T.: Cumulant-based parametric multichannel FIR system identification methods, 145

P

Pardo, J. A.: See Pardo, M. C., 13
Pardo, M. C.: A test for independence based on the information energy, 13
Pivka, L.: Chua's oscillator: A compendium of chaotic phenomena, 705

R

Radhy, N. E.: See Mastouri, C., 109
Rahmani, A.: Pole assignment for systems modelled by bond graph, 299
Rao, M.: See Shen, X., 217
Rao, N. S. V.: Fusion methods for multiple sensor systems with unknown error densities, 509
Ravindranath, S.: An analog Hopfield network to overcome excessive smoothing in shape from shading, 587
Robinson, D. G.: Extension of bond graphs to probability distribution functions, 101
Roumeliotis, J. A.: Cutoff frequencies and modes of a cylindrical-rectangular waveguide with an off-axis inner dielectric cylinder of small radius, 345

S

Sahni, S.: Reconfigurable meshes and image processing, 495
Sanders, S. R.: See Wolf, D. M., 957
Santharam, G.: Continuous action set learning automata for stochastic optimization, 607
Sastry, P. S.: See Santharam, G., 607
Savescu, R. V.: See Gao, Z., 435
Seetharaman, G.: Calibration of camera parameters using vanishing points, 555
Shen, X.: Composite control of discrete singularly perturbed systems with stochastic jump parameters, 217
Shieh, L.-S.: See Guo, T.-Y., 189
Shivaram, G.: See Seetharaman, G., 555
Sloss, B. G.: A priori error estimates for Corrington's Walsh function method, 273

Soulami, J.: See Mastouri, C., 109
Sueur, C.: See Rahmani, A., 299

T

Tabachnik, B.: See Gao, Z., 435
Tan, C.-A.: A symbolic-numeric computation algorithm for the analysis of constrained distributed parameter systems, 157
Thathachar, M.: See Santharam, G., 607
Tsai, J. S. H.: See Guo, S.-J., 23

V

Varghese, M.: See Wolf, D. M., 957
Venetsanopoulos, A. N.: See Özgen, M. T., 145

W

Wolf, D. M.: Bifurcation of power electronic circuits, 957
Wu, C. W.: See Pivka, L., 705
Wu, S.-J.: Genetic algorithms for solving mixed-discrete optimization problems, 381

X

Xia, Q.: See Shen, X., 217

Y

Yang, J.-S.: Parameter plane control design for a two-tank chemical reactor system, 61
Yang, J.-S.: A control study of a kneeless biped locomotion system, 125

Z

Zha, Q.-Z.: Synthesis of an n-port matching network, 449
Zhong, G.-Q.: Circuits for voltage tuning the parameters of Chua's circuit: Experimental application for musical signal generation, 743
Zhuang, W.: Adaptive importance sampling for bit error rate estimation over fading channels, 285